

CLAIMS:

1. Record carrier carrying information represented by read-only marks in a track, the read-only marks (74,75) being optically readable according to a predefined high-density data format via a beam of radiation by first variations of the radiation, the record carrier comprising a recordable layer (70) for writing recorded marks (72,73) in a recording area of the record carrier, which recording area extends over the track (9) carrying the read-only marks, and which recordable layer (70) is arranged to generate second variations of the radiation by a difference between an unrecorded state and a recorded state, the first and second variations being different for allowing detection of the read-only marks and the recorded marks from a same part of the track.

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2. Record carrier as claimed in claim 1, wherein the first variations and second variations are variations of intensity of reflected radiation, the second variations being substantially smaller than the first variations.

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3. Record carrier as claimed in claim 1, wherein the recorded marks (72,73) are substantially longer than the read-only marks (74,75), in particular an average length the recorded marks being at least ten times an average length of the read-only marks.

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4. Record carrier as claimed in claim 1, wherein the recordable layer is a recordable mirror layer (60) having at least two distinct reflection levels for generating the second variations, or a recordable absorption layer having at least two distinct absorption levels for generating the second variations.

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5. Record carrier as claimed in claim 1, wherein the recordable layer is a refractive layer (70) having at least two distinct refractive index levels for generating the second variations, in particular the refractive layer substantially filling pits that constitute the read-only marks.

6. Device for recording information on a record carrier carrying information represented by read-only marks in a track, the read-only marks being optically readable according to a predefined high-density data format via a beam of radiation by first variations of the radiation, the record carrier comprising a recordable layer for writing recorded marks in a recording area of the record carrier, which recording area extends over the track carrying the read-only marks, and which recordable layer is arranged to generate second variations of the radiation by a difference between an unrecorded state and a recorded state, the first and second variations being different for allowing detection of the read-only marks and the recorded marks from a same part of the track,

10 the device comprising

- a head (22) for providing the beam, and
- recording means (22,27,28,29) for, while scanning the track containing the read-only marks, controlling an intensity of the beam for writing the recorded marks by modifying the recordable layer from the unrecorded state to the recorded state.

15 7. Device as claimed in claim 6, wherein the device comprises reading means (30) for detecting the read-only marks, and the recording means (22,27,28,29) are arranged for controlling said intensity in dependence of the read-only marks.

20 8. Device for reading information from a record carrier carrying information represented by read-only marks in a track, the read-only marks being optically readable according to a predefined high-density data format via a beam of radiation by first variations of the radiation, the record carrier comprising a recordable layer for writing recorded marks in a recording area of the record carrier, which recording area extends over the track carrying the read-only marks, and which recordable layer is arranged to generate second variations of the radiation by a difference between an unrecorded state and a recorded state, the first and second variations being different for allowing detection of the read-only marks and the recorded marks from a same part of the track,

the device comprising

- a head (22) for providing the beam and generating a reading signal,
- reading means (32) for, while scanning the track containing the read-only marks, detecting the second variations for reading the recorded marks.

9. Device as claimed in claim 8, wherein the reading means (32) comprise separation means (34) for simultaneously generating, from the reading signal, a high frequency reading signal for reading the read-only marks and a low frequency reading signal, and for detecting the second variations from the low frequency reading signal for reading the recorded marks.

10. Device as claimed in claim 8, wherein the reading means (32) comprise shift detection means for detecting in the reading signal a shift in amplitude and/or level for detecting the second variations for reading the recorded marks.

11. Device as claimed in claim 8, wherein the device comprise means (30) for detecting the read-only marks, and the reading means (32) are arranged for detecting the second variations in dependence of the read-only marks.

15 12. Method of recording information on a record carrier carrying information represented by read-only marks in a track, the read-only marks being optically readable according to a predefined high-density data format via a beam of radiation by first variations of the radiation, the record carrier comprising a recordable layer for writing recorded marks in a recording area of the record carrier, which recording area extends over the track carrying the read-only marks, and which recordable layer is arranged to generate second variations of the radiation by a difference between an unrecorded state and a recorded state, the first and second variations being different for allowing detection of the read-only marks and the recorded marks from a same part of the track, the method comprising scanning the track containing the read-only marks via a beam of radiation, and, while scanning the track, controlling an intensity of the beam for writing the recorded marks by modifying the recordable layer from the unrecorded state to the recorded state.

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